



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,809	05/24/2001	Gerard Jay Bellasalma	60137-026	2588

26096 7590 11/14/2002

CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER

SORKIN, DAVID L

ART UNIT PAPER NUMBER

1723

DATE MAILED: 11/14/2002

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,809

Applicant(s)

BELLASALMA ET AL.

Examiner

David L. Sorkin

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 23-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-25 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Note: claim 26 has been renumbered as claim 25, because there is no claim 25. See 37 CFR 1.75(f), which requires that claims be numbered consecutively in Arabic numerals.

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-22, drawn a valve assembly subcombination and a combination valve assembly and mix head, classified in class 366, subclass 182.4.
- II. Claims 23-25, drawn to a process of controlling flow in response to fluid pressure, classified in class 137, subclass 7.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus could be operated in other ways. The step of "removing the first restriction" need not occur. The valves could be actuated in response to a timer rather than in response to a first and second predetermined pressure. Also, the valves could be activated sequentially by a timer, after a single predetermined pressure is detected.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with David Wysz on 24 September 2002 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Drawings

8. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "46".

Art Unit: 1723

9. Fig. 1B is objected to because both boxes 24 and 25 are labeled "Source", while according to the specification and other figures 24 designates a controller and 25 a source.

10. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

11. In paragraph [16], "2A" should read - - 2D - -.

12. After paragraph [16], a brief description of Fig. 3 must be added.

13. Paragraph [24] is objected to because of the phrase "the steps 42,22".

According to the remainder of the specification 42 is a seal and 22 is a mix head.

14. In paragraph [30], line 11, "spring 36" apparently should read - - spring 39 - -.

15. In paragraph [32], line 2, "spring 36" apparently should read - - spring 39 - -.

16. In paragraph [32], line 3, "spring 36" apparently should read - - spring 39 - -.

Claim Rejections - 35 USC § 112

17. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

18. Claims 11 and 22 fail to comply with the first paragraph of section 112 because the specification presents three mutually contradictory statements concerning the relative sizes of the openings of the three valves. According to paragraph [7] "Each valve includes an opening larger than the previous valve". According to paragraph [26] of the

Art Unit: 1723

specification, the opening of the middle valve should be larger than the other two.

According to claim 22, the opening near the outlet is the smallest.

19. Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is unclear how to operate the claimed device. In paragraph [28], it is stated that in the position of Fig. 2B, "flow through opening 36A when valve 32A is in fully open position (Figure 2B) provides the limiting flow restriction". How can the opening provide a restriction when it is "sized to be of the same diameter of passage 30" and aligned with passage 30 in a fully open position? Furthermore, paragraph [28] and Fig. 2B describe and depict valves 32b and 32c being more restricted than valve 32a. Similarly, in paragraph [32], the statement "valve 32C is partially open to the extent that valve 32B is the limiting restriction in passage 30", contradicts the drawing which shows valve 32c being most restricted and the earlier statement in the same paragraph that valves 32a and 32b are fully open while 32c is partially open.

20. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

21. Claims 18-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The scope of these claims is unclear because

parent claim 17 recites "A molding system...", while each of the dependent claims therefrom recite "The assembly as recited in ...".

Claim Rejections - 35 USC § 102

22. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

23. Note: regarding the preambles of the instant claims, "where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation" *Rowe v. Dror*, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997). There is no indication that applicant is claiming the mold (23) discussed in the specification. In claims 17-22 a "mix head" is broadly positively recited, but no particular structural aspect of the mix head (such as having a plurality of inlets and an outlet) are positively recited. In claims 1-16 the "mix head" is only referred to by the preamble intend use stipulation "for a mix head assembly of a molding system".

24. Claims 1-7 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Larsen (US 1,196,121). Regarding claim 1, Larsen ('121) discloses a valve assembly comprising an input port to a passage; a plurality of sequentially activatable valves communicating with said passage to selectively suppress flow through the passage; and an output passage (see Figs. 1-3). Regarding claim 2, a controller sequentially activates the valves to meter an initial flow (see page 1 line 89 to page 2

Art Unit: 1723

line 27). Regarding claim 3, said controller activates each of said plurality of valves in response to a predetermines pressure (see col. 4, lines 15-72). Regarding claim 4, each of said valves includes a spring bias (12). Regarding claim 5, each valve includes a spring bias (12) toward an open position. Regarding claim 6, the assembly includes a pneumatic acutator to selectively active each valves (see page 2, lines 20-27).

Regarding claim 7, each valve defines a longitudinal axis and provides an opening transverse to the axis and alignable with said passage (see Figs. 2 and 3). Regarding claim 17, Larsen ('121) discloses a system comprising a mix head (6, the bottom one in Fig. 3); an input port to a passage, said input port communicating with a feed assembly, (see Figs. 1-3); a plurality of sequentially activatable valves each defining a longitudinal axis, each of said plurality of valve including an opening transverse to the longitudinal axis an alignable with said passage to selectively suppress a flow of fluid through said passage (see Figs. 1-3); a bias (12) adjacent each of said plurality of sequentially activatable valves to bias said valve toward and open position; an actuator to selectively activate each of said plurality of sequentially activatable valves (see page 1 line 89 to page 2 line 27); and an output port from said passage, said output port communicating with said mix head (see Fig. 3). Regarding claim 18, a controller sequentially activates said valves (see page 1 line 89 to page 2 line 27). Regarding claim 19, the controller activates each valve in response to a predetermined pressure (see page 1 line 89 to page 2 line 27).

25. Claims 1-4 and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Behm (US 3,375,845). Regarding claim 1, Behm ('845) discloses a valve assembly

Art Unit: 1723

comprising an input port (12) to a passage; a plurality of sequentially activatable valves (14,15,16) communicating with said passage to selectively suppress flow through the passage; and an output port (13) from said passage. Regarding claim 2, a controller sequentially activates the valves to meter an initial flow (see col. 4, lines 15-72).

Regarding claim 3, said controller activates each of said plurality of valves in response to a predetermined pressure (see col. 4, lines 15-72). Regarding claim 4, each of said valves includes a spring bias (57-59). Regarding claim 6, a pneumatic actuator to selectively activate each of said plurality of valves (see col. 4, lines 15-72). Regarding claim 7, each valve defines a longitudinal axis and provides an opening (89) transverse to the axis and alignable with said passage (see Figs. 1 and 2). Regarding claim 8, first, second and third valves (14,15,16) are disclosed each having a longitudinal axis transverse to the passage (see Figs. 1 and 2). Regarding claim 9, first valve (14) is adjacent the input port. Regarding claim 10, each valve includes an aperture (89).

26. Claims 1-5, 7-10 and 12-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Paulson (US 887,120). Regarding claim 1, Paulson ('120) discloses a valve assembly comprising an input port to a passage; a plurality of sequentially activatable valves (15/18, 16/19, 17/20) communicating with said passage to selectively suppress flow through the passage; and an output passage (see drawing). Regarding claim 2, the arrangement includes a controller (39,40) to sequentially activate said valves to meter an initial flow. Claim 3 only discusses how the device is intended to be operated and fails to further structurally limit the claimed device. One could operate the assembly in the manner described. Regarding claim 4, each of said valves includes a

Art Unit: 1723

spring bias (41). Regarding claim 5, each valve includes a spring bias (41) toward an open position. Regarding claim 7, each valve defines a longitudinal axis and provides an opening (for example, 31, 34, 37) transverse to the axis and alignable with said passage (see drawing). Regarding claim 8, first, second and third valves (15-20) are disclosed each having a longitudinal axis transverse to the passage. Regarding claim 9, first valve (16/19) is adjacent the input port. Regarding claim 10, each valve includes an aperture (for example, 31, 34, 37). The apparatus is capable of being operated in the manner described in claims 12-16. Regarding claim 17, Paulson ('120) discloses a system comprising a mix head (the wide portion 30); an input port to a passage (53), said input port communicating with a feed assembly; a plurality of sequentially activatable valves (15/18, 16/19, 17/20) each defining a longitudinal axis, each of said plurality of valves including an opening (for example, 31, 34, 37) transverse to the longitudinal axis an alignable with said passage to selectively suppress a flow of fluid through said passage; a bias (41) adjacent each of said plurality of sequentially activatable valves to bias said valve toward an open position; an actuator (40) to selectively activate each of said plurality of sequentially activatable valves; and an output port (from 17 to 30) from said passage, said output port communicating with said mix head. Regarding claim 18, a controller (40) is capable of sequentially activating said valves. Claim 19 only discusses how the device is intended to be operated and fails to further structurally limit the claimed device. One could operate the assembly in the manner described. Regarding claim 20, three valves 15/18, 16/19, 17/20) are

Art Unit: 1723

disclosed. Regarding claim 21, each valve includes an aperture (for example, 31, 34, 37).

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. Claims 8-10, 12-16, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsen (US 1,196,121). Regarding claims 8 and 20, Larsen ('121) discloses two valves rather than three; however, it has been held that it is obvious to duplicate parts for a combined or multiplied effect. See *St. Regis Paper Company v. Bemis Company v. Bemis Company, Inc.* 193 USPQ 8 (CA 1977) and *In re Harza* 124 USPQ 378 (CCPA). Regarding claim 9, the first valve is adjacent the input port (see Figs. 1-3). Regarding claim 10 and 21, the valves have apertures (see Fig. 2). The apparatus is capable of being operated in the manner described in claims 12-16.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 703-308-1121. The examiner can normally be reached on 8:00 -5:30 Mon.-Fri..

Art Unit: 1723

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



David Sorkin

November 6, 2002



CHARLES E. COOLEY
PRIMARY EXAMINER